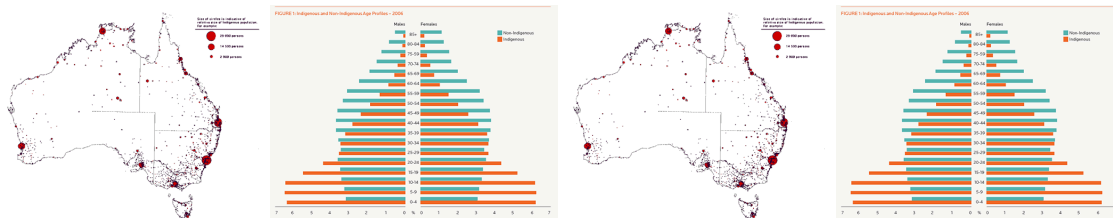

Research Brief 201302

The Northern Territory's Declining Share of Australia's Indigenous Population: A call for a research agenda



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(Images source: Australian Government:
<http://www.environment.gov.au/soe/2001/publications/technical/indigenous/distribution.html>)

Summary of the Research

This research brief examines the Northern Territory's declining share of the Australian Indigenous population and the consequences of this for financial allocations to the NT Government. We outline the main causes and discuss the effects these are having on the veracity of statistical measurements and indicators for Indigenous Australian's from 'denominator shifting'. We highlight the need for a research agenda to better understand the causes and consequences and to re-consider how disadvantage is conceptualised in light of the issues discussed here.

We would like to acknowledge and thank Tony Barnes for his work in improving understanding of the causes and consequences of the changing demography of the Northern Territory as well as for his input and advice in relation to this research brief.

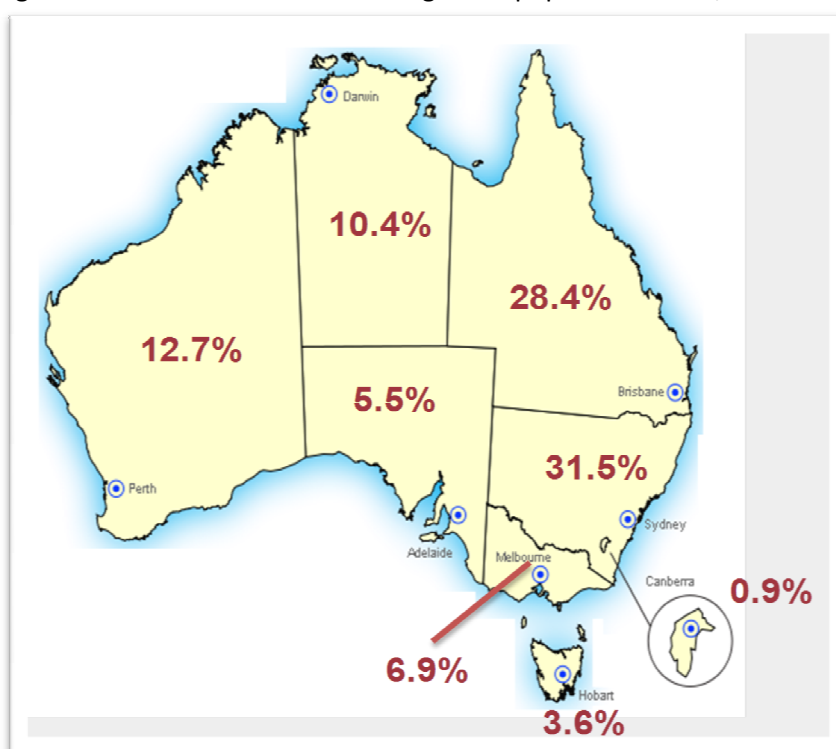
Key Findings

- The Northern Territory's share of the Indigenous population of Australia has been declining for a number of decades.
- Despite growing in absolute size, the NT's Indigenous population as a share of the national Indigenous population has fallen from over 18% in 1981 to around 10% in 2011.
- Large increases in the measured Indigenous population elsewhere in Australia are the basis of this declining NT share.
- The declining NT share has significant implications for Federal funding to the NT Government under the legislation in place to distribute Goods and Services Tax revenues to States and Territories.
- New Indigenous identifications, mixed partnering, migration and changing measurement systems are the primary drivers behind the disparate rates of change.
- Growth by these means is diluting the veracity of statistical measures and indicators for Indigenous disadvantage on which key policies like 'Closing the Gap on Indigenous Disadvantage' are predicated.
- This brief highlights the need for a considered research agenda to better understand causes and consequences of changing shares at various geographic levels.

1. Introduction

The Northern Territory (NT or 'Territory') has by far the highest proportion of Indigenous residents of all Australian States and Territories. The most recent estimates (based on the 2011 Census and adjusted for Census counting issues) suggest that 30%, or 69,000 residents are Indigenous (ABS, 2012a), more than the combined total for South Australia, Tasmania and the Australian Capital Territory. The Territory has around 10% of the total Australian Indigenous population while its overall population share is just 1% (Figure 1). The size of the Indigenous population of the NT has continued to grow and in 2011 it was up by around 25,000 people (or 54%) compared to 1991.

Figure 1 – States and Territories Indigenous population share, 2011



Source: ABS, 2012B

The Indigenous population of the Northern Territory is significant in many ways. Not least, its demographic structure is young (as a result of higher fertility rates and lower life expectancies than other Territorians) and female oriented, in contrast to the overall male bias which has long existed in the non-Indigenous population. The majority of the NT's land mass is classified as remote with all settlements outside of the Greater Darwin area (home to half of the general population and around 90% of Indigenous NT residents) classified as remote.

The distribution of the Indigenous NT residents and their relatively poor socio-economic status places high demands on services and infrastructure including health and community care and the legal and justice areas. The costs of delivering these services to remote residents are relatively high, placing the Territory at a financial disadvantage compared to other jurisdictions. Under the

arrangements for distributing the proceeds of the Goods and Services Tax (GST) to Australia's States and Territories the NT has traditionally been compensated for these relatively high costs. Arrangements take into account the financial 'disability' in servicing the NT's largely remotely located Indigenous population. But the Territory's share of the Australian Indigenous population has fallen substantially, and continues to do so, primarily as a result of increasing numbers of Indigenous Australians being recorded as residing in urban areas outside of the NT.

2. Outline of this brief and its data sources

In this brief we quantify the Territory's declining share of the national Indigenous population using a range of data. We convey the important relationship between Indigenous population size and the allocation of GST revenues to States and Territories. We outline how Indigenous status is measured in official data collections before discussing the key factors driving a changing national settlement distribution. We contemplate future demographic and social implications and examine the important effects of changing shares on the measurement of social and demographic indicators in relation to Indigenous Australians, including the targets written into the Australian Government's policy of *Closing the Gap on Indigenous Disadvantage*. We then move to outline a research agenda for better understanding these changes.

The main sources of data are the Census of Population and Housing, population estimates and population projections; all sourced from Australian Bureau of Statistics (ABS). Users of Census data will be familiar with the issue of undercounting and its effects on data comparisons over time. The 'net undercount' (essentially those missed minus those double counted in the Census) changes for individual States and Territories at each Census and varies between States and Territories at a given Census. Compounding this, methods used to derive the net undercount have changed over time. Consequently changes in the size and composition of the Indigenous population are influenced by these factors; but to an unknown extent. Nevertheless, whether we examine Census data or population estimates (adjusted for net undercounting), very similar rates of decline are evident in the Territory's share of the Indigenous population, such that Census data are considered adequate and representative for the research presented here. Indeed, prior to the early 1990s, population estimates for Indigenous Australian's were not routinely produced making Census data is the best source for an extended time series analysis.

3. Defining and measuring our Indigenous population

Measurements of the size and characteristics of Australia's Indigenous population are determined from official data collections (primarily the Census) and through the application of data from key administrative collections (like births and deaths registrations) to these in population estimation processes. Census methods for determining the Indigenous status of individuals, and the official definition of Indigenous status itself, have changed significantly over time. Changes have, by and large, followed developments in civil rights as well as institutional and philosophical views on Indigenous Australians. Highlighting this, in 1967 a national referendum was held (and passed overwhelmingly) on two key Australian constitutional amendments. First, a section was inserted to enable the parliament to make laws specifically relating to the wellbeing of Indigenous

Australians. Secondly, an existing section precluding Indigenous people from inclusion in official population statistics was removed. This curtailed the Census question on ‘race’ which existed to exclude Aboriginal people from official population figures (Ross, 1999).

The 1967 Referendum provided the imprimatur for the separate and consistent collection of statistics on Indigenous Australians and was particularly important to developments in measuring the Indigenous population in the Census, from which official population estimates are derived. The Referendum was the catalyst for a transition to self-identification of Indigenous status in the Census (first applied in full in 1971) and other core administrative data collections (birth certificates, hospital records and so on). The question was and continues to be based on the Commonwealth working definition of an Aboriginal or Torres Strait Islander as:

"An Aboriginal or Torres Strait Islander is

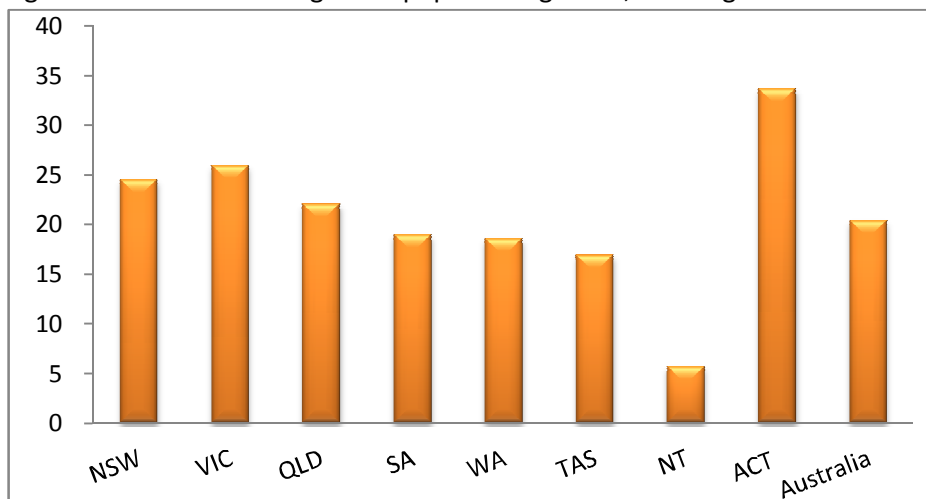
- a person of Aboriginal or Torres Strait Islander descent,
 - who identifies as being of Aboriginal or Torres Strait Islander origin and
 - who is accepted as such by the community with which the person associates."
- (ABS, 2010b)

The application of self-identification to official data collections in Australia coincided with major Indigenous rights reforms and events in the 1970s and 1980s. As with the collection of official statistics in other nations who have substantial Indigenous populations (Canada and New Zealand, for example) self-identification continues to be applied to core data collections.

4. Declining NT Indigenous share despite growth

Despite continued growth in the size of the Territory’s Indigenous population, its share has declined substantially in recent decades. From 2006 to 2011 the Indigenous population of the NT grew by 5% but this was the lowest of all States and Territories with national growth of 20% during this period (ABS, 2012b) (Figure 2).

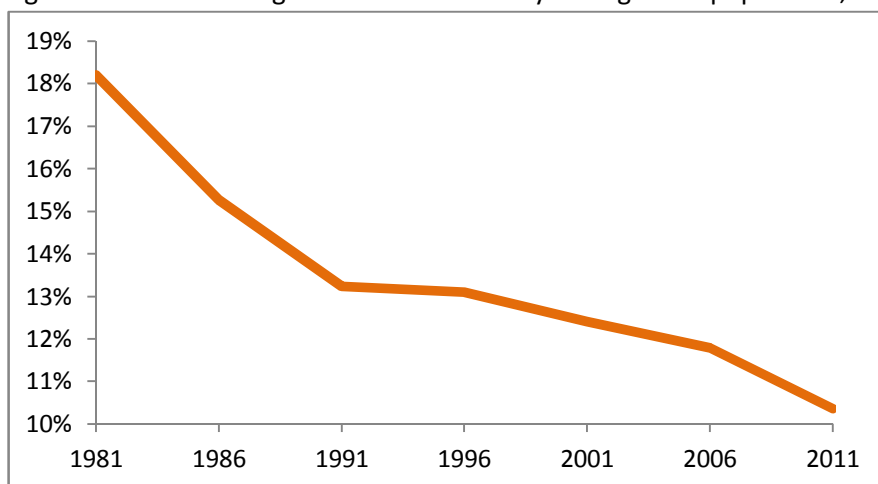
Figure 2 – Intercensal Indigenous population growth, % change 2006 to 2011



Source: ABS 2012b

The decline in NT share during 2006 to 2011 is consistent with long-term trends where the Territory has lost share at each Census since 1981. From 1981 to 2006, for example, the NT's share fell from 18.2% to 11.8% of the national population, and by 2011 stood at 10.4% (Figure 3).

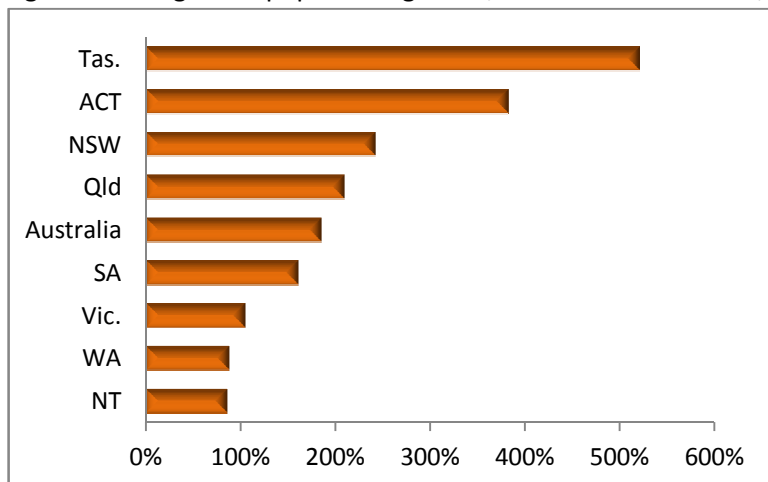
Figure 3 – The declining share of the Territory's Indigenous population, 1981 to 2011



Source: ABS, 2008; ABS, 2009 and ABS, 2012b

Historical data shows that the Territory's declining share is primarily a result of high Indigenous population growth measured for other parts of Australia compared to moderate growth in the NT. During 1981 to 2006 the Indigenous population of Australia increased by around 185%, more than twice the increase for the Territory of 85% (ABS, 2008). Importantly, growth in the jurisdictions home to 60% of Australia's Indigenous peoples, New South Wales (NSW) and Queensland (QLD), was at above national rates during this period (Figure 4). Despite rates of growth in NSW and QLD being lower than for the ACT and Tasmania, these states recorded large absolute additions to their Indigenous populations because of the relatively large size of the base population (i.e. there were scaled effects). Consequently their share increased from 57% to 60% from 1991 to 2001.

Figure 4 – Indigenous population growth, States and Territories, 1981 to 2006



Source: ABS, 2008

As well as substantial absolute growth in the Indigenous population of the most populous states, growth within these has primarily, and is increasingly, concentrated in capital cities and their surrounding urban peripheries. By 2006 more than half (53%) of Australia's Indigenous people lived in these areas, up from 50% in 2001 (ABS, 2010a). Population projections suggest increased urban concentrations on a national scale with those residing in major cities as well as inner and outer regional areas (combined) expected to rise from 75% in 2006 to 80% in 2021 (ABS, 2009).

5. Financial implications from Australia's changing Indigenous population distribution

Compared to other jurisdictions, the size, distribution and relatively poor socio economic status of its Indigenous residents places the Northern Territory Government at a relative financial 'disadvantage' in providing services and infrastructure. In theory, these 'extra' costs are taken into account by legislation and financial systems managed by the Commonwealth Grants Commission (CGC) to distribute the proceeds of the Goods and Services Tax (GST) to Australia's States and Territories. The Horizontal Fiscal Equalisation Scheme (HFES) transfers GST revenues to States and Territories and, for some, is their main source of revenue. The Scheme is based on the ability of governments to raise revenues and the costs they incur in providing equivalent services to residents. The paragraph below summarises the principles behind the HFES:

The Commission recommends relativities to be used in calculating each State's share of GST revenue such that, if each State made the same effort to raise revenue from its own sources and operated at the same level of efficiency, each State would have the capacity to provide services at the same standard.

This does not necessarily result in the equalisation of government services — just the equalisation of the capacity to provide the same standard of services. States are able to spend their share of GST revenue according to their own budget priorities.

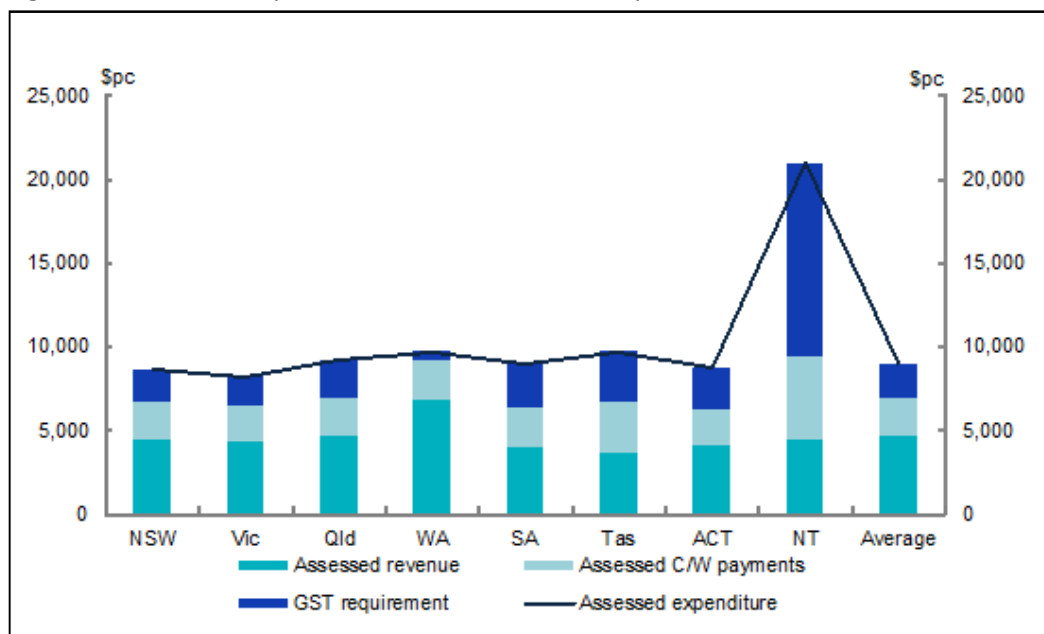
In calculating the GST relativities, the Commission takes into account differences in the States' capacities to raise revenues and differences in the costs the States would incur in providing the same standard of government services.

(Source: Australian Government, 2007)

The HFES compensates jurisdictions encountering relatively high costs (or 'disabilities' as it is termed in the legislature) of providing equivalence in services. On this basis the Northern Territory Government receives a higher GST transfer than its share of the national population. Indicative is the 2010-11 distribution of GST revenues shown in figure 5. That year the Territory's share was 5.2% of GST compared to its 1% share of the national population (Australian Government, 2007; ABS, 2011). Per capita differences between revenue streams (including mining, conveyances, payroll, insurance, motor vehicle, land, other and Commonwealth payments) and expenditure on services for States and Territories (schools, post-secondary, admitted patients, community health, welfare and housing, communities, justice, road,

transport, services to industry, other, depreciation, investment and net lending) are greatest for the NT by a factor of around 10, or \$22,500 per capita. Consequently GST revenues constitute around 65% of NT income compared to around 25% for NSW, Victoria and Queensland.

Figure 5 – Revenue, expenditure streams and GST requirements, States and Territories, 2010-11



Source: Commonwealth of Australia, 2011

Given this, and assuming no changes to the HFES, changing settlement patterns for Indigenous Australians, as evidenced by the declining NT share, will effect GST revenue re-distributions towards jurisdictions with a growing share. Furthermore the relatively small size of the NT's GST allocation means that any diminution in share will translate to relatively significant reductions in GST revenues. This was highlighted by the Northern Territory Government in a media release in early 2013 (see Northern Territory Government, 2013) proposing a \$110m (AUD) per annum reduction in GST monies would result from the NTs reduction in the measured share.

6. Underlying causes

In this section we outline the primary causes for the NT's declining share of Australia's Indigenous population. Both socially derived (non-demographic) and demographic factors are at play. Explanations of these are by necessity simplified accounts of what are complex and interrelated causes. Readers are therefore encouraged to source the ancillary literature referenced in the sections below for a more complete understanding of the underlying issues.

6.1 Growth in Indigenous 'new identifications'

In line with other developed nations with large Indigenous populations and a colonial history, the measurement of the size of the Indigenous population in Australia is a social construct. That is, Australians can identify themselves as being of Aboriginal or Torres Strait Islander origin without any qualifying biological requirements (like DNA tests). Consequently individuals can identify as

Indigenous at one point in time when they may not have done so previously (for example, from one Census to the next). Similarly, individuals may identify in one data collection while choosing not to do so in another (for example affirmatively on the electoral role but not in the Census).

Research by Hunter (1998) demonstrated this fluidity in the composition of the Indigenous population by finding that, over the course of just three weeks, 17% of people changed their Indigenous status in between the Census and Post Enumeration Surveys (PES - from which the Census undercount is derived) in both 1991 and 1996. Over recent decades, the Indigenous population of Australia has grown at a rate which is not possible from demographic factors alone. The biggest contributing factor has been ‘new identifications’ in the Census (ABS, 2012c) where individuals have identified as Aboriginal or Torres Strait Islander (or both) when they did not do so prior. Around half of all growth in the Australian Indigenous population between 1991 and 1996 (when it grew by a third) was thought to be from new identifications (Hunter, 1998).

Consistent with a range of research conducted in Australia and overseas, variable identification (particularly new identifications) have been prominent in urban areas and amongst those in mixed relationships, where only one partner is Indigenous (ABS, 2012d). In short, compared to rural or remote areas, the latent potential for new identifications in urban areas has been is still relatively high. The urban focus for new identifications in Australia is critical to discussions on the NT’s declining Indigenous share. Its foundations are complex and historical. Smith (1980) argues that until the 1960s there was a conscious effort to omit groups of urban Aboriginal populations from population counts to conceal their true numbers at the time of colonisation and so to hide the extent of colonial impacts (i.e. Indigenous deaths). The inference is of a colonial legacy of significant cohorts of people in cities who might otherwise have identified as Indigenous either being prevented from or wary of doing so. However, later colonisation of remote areas and maintenance of cultural activities there have seen a greater proportion of those who might identify doing so in these areas.

Research conducted on behalf of the ABS during 2010 to 2012 provides some clues on why individuals might provide a different response to Indigenous status at different times. It involved around 200 Indigenous people from across Australia and identified factors encouraging and discouraging identification as Indigenous in official data collections and research (ABS, 2012d). The results emphasises the complex mix of the individual’s location, social circumstances and family arrangements leading to changes in their stated Indigenous identity (Table 1).

Table 1 – Factors encouraging and discouraging affirmative identification

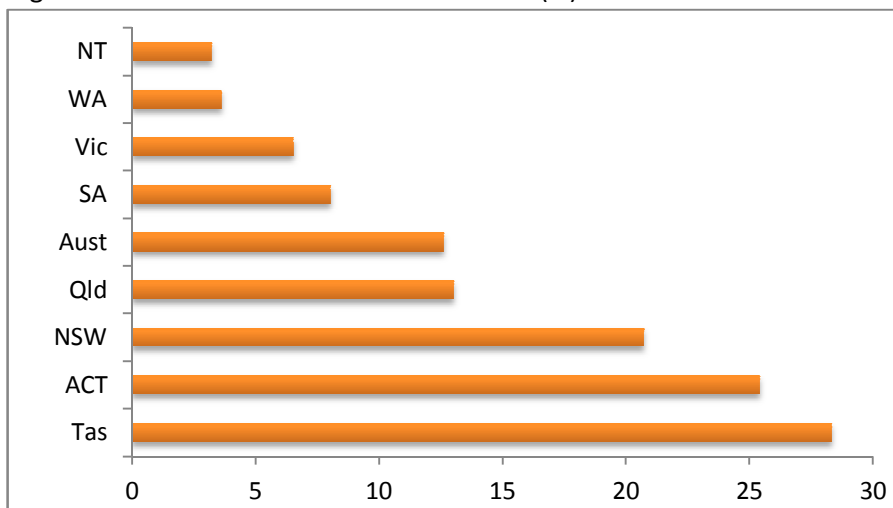
Factors encouraging affirmative identification	Factors discouraging affirmative identification
<ul style="list-style-type: none"> ➤ A sense of pride and confidence in identity ➤ The perception that disclosing this information can lead to benefits for Aboriginal and Torres Strait Islander peoples and the individual personally ➤ The perception that disclosing this information can promote recognition for issues related to 	<ul style="list-style-type: none"> ➤ The belief and experience that identifying can have negative repercussions for the individual and the wider community ➤ The belief and experience that identifying may lead to racism, discrimination or differential treatment

Factors encouraging affirmative identification	Factors discouraging affirmative identification
Aboriginal and Torres Strait Islander peoples <ul style="list-style-type: none"> ➤ Having a 'Confirmation of Aboriginality' to support their identification ➤ The perception that answering the question was compulsory in certain contexts 	<ul style="list-style-type: none"> ➤ Learned behaviour as a result of past experiences ➤ Being offended at being asked the identity question in certain contexts ➤ Needing more information about the reasons the information is being collected

Source: ABS, 2012d

Ascertaining the relative contribution of new identifications to the growth in Australia's Indigenous population is complex and requires access to a range of data which is not available publically. Ross (1999) conducted research on behalf of the ABS to quantify the explainable (demographic) and unexplainable (non-demographic) components in the large (33%) growth in Australia's Indigenous population from 1991 to 1996. She found around 40% of the increase was attributable to natural increase (births minus deaths), with the NT recording both the lowest increase in population size (16%) and the highest contribution to growth due to natural increase (80%). Small contributions to overall growth were attributable to overseas migration and changed Census coding procedures. The remainder (13% nationally) was due to the 'error of closure' - growth not explainable by demographic factors or coding issues. The error of closure varied significantly between States and Territories with the NT recording a much lower rate (3%) than most jurisdictions (Figure 6).

Figure 6 – The 1991 to 1996 error of closure (%) for States and Territories



Source: Ross (1999)

Ross's study (1999) affirms the relatively small influence of new identifications on Indigenous population growth in the NT and supports related research which suggests new identifications are a major factor in the reduction of the NTs share. Biddle (2012) suggests contemporary Indigenous policy making may be enhancing and encouraging these changes:

One-off events may also have an impact, with some suggesting that the Apology to Australia's Indigenous Peoples made by the former Prime Minister Kevin Rudd made some Indigenous Australians who did not identify as such more comfortable in doing so in the most recent census. (pg. 4)

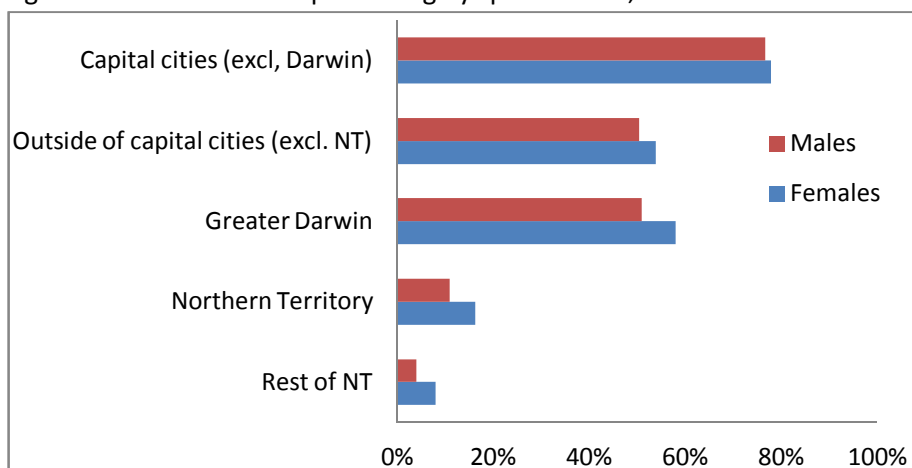
Meanwhile, Hunter's 1998 research proposes 'new identifiers' have broadly similar characteristics to existing Indigenous people (age, gender and socio-economic traits) meaning new identifiers are relatively less socio economically disadvantaged than NT Indigenous residents.

6.2 Mixed partnering

Mixed partnerships are those where a person who identifies as Indigenous is partnered (in marriage or a defacto relationship) with a person identifying as non-Indigenous. A number of terms are used to describe such unions including 'intermix', 'intermarriage', 'inter-coupling' and 'mixed partnering' (we prefer the latter). Mixed partnerships have the potential to 'add' Indigenous babies to the population. For example, in almost all cases where the mother in a mixed partnership is the Indigenous the baby is registered as such (see Peterson and Taylor, 2002). In broad terms rates of mixed partnerships have increased in Australia as cultural and social divisions have eroded (Birrell, 2000).

Ross (1999) identified that the states with the highest rates of mixed partnerships also had the highest error of closure. This suggests a positive relationship between mixed partnering and growth in the Indigenous population. Indeed the 2006 Census was the first to report that the majority of Indigenous Australian's were in such unions. Additionally, research by Head et al. (2009) found the vast majority of Indigenous Australian's living in urban areas were in mixed partnerships, while generally only the relatively highly educated and those on high incomes outside of cities were so. Figure 7 demonstrates these significant spatial differences at the 2006 Census. In capital cities (excluding Darwin) around 80% of Indigenous males and females were in mixed partnerships compared to 50% outside of capital cities. The Northern Territory was vastly different with just 8% of females and 4% of males outside of Darwin in mixed partnerships. In Darwin rates approximated those outside of capital cities in the rest of Australia.

Figure 7 – Rates of mixed partnering by spatial areas, 2006

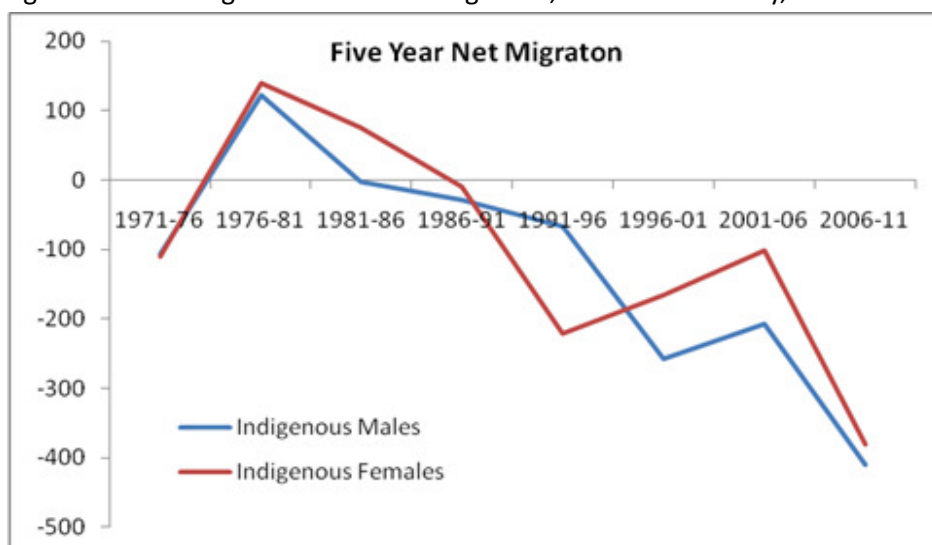


Source: Adapted by the authors from Head et al. (2009).

6.3. Migration and urbanisation

Until recently the number of Indigenous Territorians moving to live interstate has broadly aligned with the number coming to live in the NT each 5 years. But during 2006 to 2011 the equivalent of a medium to large sized Indigenous NT community migrated, on a net basis, out of the Territory. Similar number of males and females comprised the net figure during that period (Figure 8). While Census counting issues may have affected the scale (either up or down) of the net outflow, this measured out migration is further reducing the NT's share of the national population.

Figure 8 – Net Indigenous interstate migration, Northern Territory, 1971-2011



Source: Census of population and housing, various years.

On a national basis Indigenous migration is broadly towards urban centres and away from remote and rural areas. The largest absolute flows are from regional areas to major cities but the largest net negative flow is between remote and regional areas with, for example, around 1% (net) of the remote Indigenous population of Australia migrating to regional areas from 2001 to 2006 (ABS, 2006). The overall effect of out migration from the NT and urbanisation in the rest of Australia has been to grow the urban Indigenous population, which increases the potential for further mixed partnering and adds to the likelihood of new Indigenous identifications.

6.4 Changing definitions, Census procedures and population estimation methods

Procedures and methods for enumerating Indigenous Australians in the Census each five years have changed since the introduction of the self-identification question on Indigenous status outlined above. A raft of procedures and methods have been altered over time including changes to the wording of the question itself and its position on the Census form (see Ross, 1999), changes to field procedures, including interviewer training and tasks, and changes to post-Census edits at the processing centre. The impacts of these have varied spatially and over time and have not been systematically researched or fully understood. In addition, the management and application of Census field procedures have occurred under State and Territory based Census Management Units (CMUs). There are grounds to suggest CMUs may have interpreted and applied procedures in different ways over time and between geographical areas (Martin, et al., 2002).

Estimates of the Indigenous population of each State and Territory are developed from Census counts but these represent an imperfect stocktake of the national population. Some people are missed altogether, some are double counted and some only partially complete their forms. The biggest issue is under enumeration, which is measured by the 'net undercount' of the Census for each State and Territory (and sub-regions) based on subtracting those double counted from those missed. Net undercount is obtained from a sample survey conducted a few weeks after the Census. The Post Enumeration Survey (PES) provides a picture of Census coverage:

- to augment Census counts, in order to derive the most robust estimate of the resident population (ERP) for 30 June of the Census year;
- to provide users with an assessment of the completeness of the Census counts, allowing them to take this into account when using Census information; and
- to evaluate the effectiveness of Census collection procedures so improvements may be made for future Censuses.

(ABS, 2012d, pg. 5)

For the 2011 Census the net undercount was estimated at 1.7% (or 374,540 people) for Australia. As in past Censuses the NT recorded by far the highest net undercount at 6.9% and outside of Darwin the rate was higher still at 10.9% compared to 3.7% for Darwin.

Net undercount is the key input to adjustments of Census counts to develop Estimated Resident Population (ERP) numbers for the Census year. Critically, the high net undercount rate for Indigenous people for the 2006 Census (19.2%) cannot be directly compared to 2011 due to changed PES procedures (outlined in ABS, 2012d). Consequently State and Territory level estimates of Indigenous net undercount are not published for the 2011 Census. Additionally PES methods have changed over time such that direct comparisons of net undercount between Censuses are not possible.

These factors mean we cannot ascertain the extent to which Indigenous net undercount at the State and Territory level has contributed to the differences between Census counts and the resultant ERP figures. For example, data for 2011 suggests a relative increase in Indigenous undercount outside of the NT and a relative reduction in the NT from 2006. This impacts on population share as measured by the ERP figures because Census Indigenous counts outside of the NT may have been adjusted upwards to a greater extent than for 2006, while the reverse may have been so for the NT. In 2011 undercount rates were higher in capital cities excepting for the NT, Tasmania and New South Wales (ABS, 2012d). Similarly in 2001-2006 there was a big increase in the NT Indigenous undercount but not in rest of Australia. These vagaries complicate assessments about the extent to which individual factors discussed here have contributed to Indigenous population change over time for each State and Territory.

6.4 Summary of drivers and future trends

The drivers of the declining NT share of the national population presented here, albeit in simplified terms, are highly interrelated. Their origins and impacts are complex and their relative influence in changing the share for each State and Territory difficult to measure. Nevertheless, the concentration of mixed partnering in urban areas means that, even if rates of new identifications

in cities plateau, further disparities in the Indigenous population growth rates between the NT and other jurisdictions in Australia (especially metropolitan Australia) over coming generations can be expected. Furthermore, the process is self-perpetuating with both mixed partnering and new identifications fuelling demographic and non demographic growth in the Indigenous population of jurisdictions outside the NT and mainly in cities. Long-term urbanisation within States and Territories, featuring a net movement away from remote areas, is augmenting the more prominent influences of new identifications and mixed partnering.

While fertility rates for Indigenous Australians are forecast to decline in coming decades, new identifications and mixed partnerships will grow the absolute number of Indigenous births. At the extreme this cycle will cease once 'Aboriginality' becomes completely 'diluted' from the population through successive generations of offspring produced by mixed partnerships. In demographic terms it is not plausible that Indigenous fertility rates in the NT will increase sufficiently to offset the combined effects of new identifications, mixed patterning and migration. Accordingly, the NT's share of the Indigenous population can be expected to continually decline. Unless algorithms for determining State and Territory GST shares under the HFES are reviewed, the NT's share of national GST revenues will continue to be eroded. This decline in revenue base with no (*ceteris paribus*) associated diminution to the needs of the population for services and infrastructure will have detrimental impacts on the Northern Territory Government's capacity to deliver balanced budgets and provide services; increasing pressure to raise revenues locally.

7. Implications for Indigenous indicators and 'closing the gap'

Growth in the Australian Indigenous population in recent decades and its geographic focus in urban areas has impacted on the dependability and comparability of measures and indicators related to Indigenous Australians. Specifically, 'rate' statistics are affected. Rate statistics refer to frequency and occurrence measurements where the denominator used in calculation is the population in question. An example is the rate of a disease occurrence per 10,000 people. Rate statistics are applied extensively within the current policy environment to policy formulation, program development and progress measurement or evaluations, in line with the affinity for 'evidence based policy'.

Targets articulated in the Council of Australian Government's policy '*Closing the Gap on Indigenous Disadvantage*' are based directly or indirectly on rate statistics:

- To close the life-expectancy gap within a generation
- To halve the gap in mortality rates for Indigenous children under five within a decade
- To ensure access to early childhood education for all Indigenous four years olds in remote communities within five years
- To halve the gap in reading, writing and numeracy achievements for children within a decade
- To halve the gap in Indigenous Year 12 achievement by 2020
- To halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade.

Looking at the target of halving the gap in Year 12 achievement, its measurement relies on the Census and is determined by the proportion of Indigenous and non-Indigenous people completing Year 12 or the equivalent. A shifting denominator created by non-demographic factors may create the appearance of a change in the proportion achieving Year 12 when in fact no change had occurred. The direction of this change will be determined by the combined characteristics of people added to and taken away from the denominator (and numerator) in between measurement periods through both non-demographic and demographic means.

Similarly, new identifiers may 'import' particular characteristics into the Indigenous population and effect changes in its underlying characteristics. The overall effect of denominator shifting is to complicate the measurement and interpretation of indicators related to Indigenous Australians and to blur assessments on progress towards specific targets where rate statistics are utilised.

8. The need for a research agenda on Indigenous population change

The broad brushed examination of the NT's declining population share provided in this research brief demonstrates the need for a research agenda to more fully understand the nature and composition of Indigenous population change at the national and jurisdictional levels. Importantly, the absolute level of service demand for Indigenous Territorians is not *ceteris paribus* affected by a declining share, and may actually be increasing from growth in the Indigenous population.

The tasks include dissecting the methods (and changes in these) from which Indigenous population change are derived and measured at different levels of geography. This brief also emphasises the necessity for a review on who is affected by disadvantage as a way of informing a review of the CGC procedures and rules for distributing GST revenues. The dilution of the relevance for current approaches due to the new identifications, mixed partnering and changed Census and population estimation procedures bring into question the *prima facie* and homogeneous application of Indigenous status as the primary demarcation of disadvantage.

In light of this, a number of specific research initiatives might be considered:

- Time series decompositional analysis to identify the contributors to intercensal Indigenous population change on a consistent basis for as far back as is possible. This will require access to data and information held within the ABS which is not publically available. The task is to build on the research of Ross (1999) and Hunter (1998).
- Detailed work on the contribution of changed methodologies for generating Census counts and population estimates to intercensal Indigenous population change for as far back as is possible. This requires worked examples to be undertaken and documented according to the exact approaches applied by the ABS.
- A research project examining the motivations for new identification, non-identification, changing identification and de-identification including examinations of the characteristics of people who do so using a mixed-methods approach. This needs to be of sufficient size

and scope to elicit more detailed and representative findings than the ABS study reported on in 2012 (ABS, 2012d).

- Time series research on mixed partnering to determine whether and how changing spatial and individual characteristics correlate with other factors such as migration, incomes, propensity to produce Indigenous offspring and education.
- A considered examination of alternative ways of measuring who is disadvantaged in light of the diminishing effectiveness of current applied measures and indicators due to non-demographic contributions to growth in the Indigenous population of Australia. This would incorporate work to identify how disadvantage might be measured independently of Indigenous status.

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